

**An Examination of Self-Stigma and Distress Intolerance in College Students Diagnosed  
with a Mental Illness**

**An Honors Thesis (HONR 499)**

**by**

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May 2018

**Expected Date of Graduation**

May 2018

SpColl  
Undergrad  
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## SELF-STIGMA AND DISTRESS INTOLERANCE

### Abstract

Mental health stigma can be detrimental to an individual's well being, as well as the help they may receive. Self-stigma is present when an individual endorses the societal stigmas related to mental illness and questions their ability to effectively interact with the world around them. Predictors of self-stigma include poor emotional or social resiliency and maladaptive coping strategies, all of which are related to poor distress tolerance (Livingston & Boyd, 2010, Corrigan, 2004). As such, one would expect that those who perceive negative emotional experiences as intolerable would be more likely to endorse self-stigmatizing beliefs about their own mental illness. However, no previous empirical study has examined this association. Thus, the purpose of the current study was to examine the association between mental illness related self-stigma and distress intolerance. I hypothesized that those who are more intolerant of distress would be more likely to endorse self-stigmatizing attitudes. As part of a larger study assessing distress intolerance and related constructs, participants ( $n = 54$ ) completed measures examining distress intolerance and mental health self-stigma. Participants were included if they endorsed having been diagnosed with a mental illness. Results of the study indicate there is a statistically significant and clinically meaningful positive association between scores on the SSMIS-SF and DTS, suggesting there is a relationship between the two constructs.

*Keywords: Stigma, self-stigma, mental illness, distress intolerance*

## SELF-STIGMA AND DISTRESS INTOLERANCE

### **Acknowledgments**

I would like to thank Dr. Tayla T.C. Lee for advising me through this project. I would not be where I am today without her guidance and support throughout my undergraduate years. I would also like to thank Andrew Kremyar for taking me under his wing and teaching me the ways of manuscript writing throughout this process. You both made my Senior Honors Thesis less daunting, and I am very grateful to have had such an amazing advisor and collaborator.

### **Process Analysis**

Throughout college, all of my Psychology courses have emphasized society's impact on the individual. The most influential class I have taken in my major was Abnormal Psychology, which focused on mental illnesses and their influence on the individual. In this class, I learned about stigma of mental illness and the negative impact mental illness stereotypes can have on individuals.

One aspect of stigma I was interested in was self-stigma of mental illness, which is when a person with a mental illness starts to believe the negative societally-held stereotypes about themselves. For example, a person may feel like they are unable to be employed because of their mental illness, but these stereotypes stem from societal beliefs about individuals with mental illness. This application of self-stigmatizing attitudes and behaviors may make a person more likely to experience other psychological dysfunctions, as well as lower a person's self-efficacy, sense of hope, or ability to function in everyday life. Because of the negative impact that self-stigma can have on the individual, I was interested in seeing if there were any possible personality predictors that made a person more likely to experience self-stigma related to their mental illness. This is important because if researchers could target a personality factor that makes a person more likely to experience self-stigma, perhaps we could work to prevent self-stigma from developing in the first place. This could also aid in treatment of individuals with mental illness.

I began this project by finding a thesis advisor. I had previously been a teacher's assistant for Dr. Lee, so I had experience working with her and I knew what her areas of research consisted of. I also had Dr. Lee as my Abnormal Psychology professor, and she was the one who introduced the concept of self-stigma to me. She was advising another student's thesis as well, so



she had her graduate assistants help with the advising process throughout the year. Andrew Kremyar (Dr. Lee's graduate assistant) became a second advisor to me, and helped me with many of the technical aspects of my thesis (IRB approval, manuscript writing, data collection and analyses, etc). I was very happy to have two people to collaborate with and go to for questions; it made this process a lot more efficient and less stressful overall.

After researching my topic and completing my literature review regarding self-stigma and various personality factors, I found the Self-Stigma of Mental Illness Scale – Short Form (SSMIS-SF). I decided I would use this measure to examine self-stigma in relation to distress intolerance (Distress Tolerance Scale). With IRB approval, I was able to insert the SSMIS-SF into Andy's larger study examining distress tolerance and other related constructs.

The final sample for the current study included 54 participants who indicated having been previously diagnosed with a mental illness. Following data collection, I ran Pearson's correlations between scores on the SSMIS-SF and DTS, and found that there was a significant association between scores on the two scales, suggesting there is a relationship between self-stigma and distress intolerance. The research I conducted can potentially be used to help reduce self-stigma in individuals with mental illness. This was the first study that examined the relationship between the two constructs; therefore, it opens the door for future research to examine this relationship more closely.

This study taught me a lot about the research process, and how challenging research can be. Although my study ran fairly smoothly, I have never been part of a project that ran longer than a semester. It was a new challenge for me to plan months in advance for a project, and I had to work very diligently to remain on track and stay focused on this project throughout the whole year.

I also learned how to be part of a collaborative team. Although my thesis reflects my individual thoughts and research, I was able to work with two incredible people who offered insight and guidance throughout the process. I have never been part of a long-term collaborative team like this, and through this experience I learned how to effectively communicate back and forth, as well as how to work with colleagues to bounce ideas off of one another.

Although I am not pursuing research in the future, this was a great learning experience for me. I learned more about the step-by-step process of how research is conducted, and how the process is continuous and ongoing. I was terrified to complete my Senior Honors Thesis, but it has been a great experience overall. The Senior Honors Thesis has prepared me for many different avenues of future study, and I am thankful for this experience. I am also very proud of myself for completing this thesis, it is one of my greatest accomplishments in college.

## An Examination of Self-Stigma and Distress Intolerance in College Students Diagnosed with a Mental Illness

Stigma is defined as prejudice or discrimination towards individuals who are seen as having negative attributes (Corrigan, 2004). Stigma is not only unjust; it creates a system of marginalization for individuals, therefore diminishing their voice and ability in society. Because of the detrimental effects stigma can have on an individual and their outlook on life, it is essential to understand the different forms of stigma and how they are exacerbated in order to prevent or combat them. One of the most detrimental forms of stigma is societal stigma against mental health. Stigma towards individuals with mental illness affects the way the world sees an individual and has the ability to impede treatment (Casados, 2017). Indeed, mental illness stigma is seen as one of the most substantial barriers to utilizing mental health services (Clement et al., 2015).

The societal attitudes about those with mental illness impact the way individuals are perceived in their environment, but also the way they perceive themselves. As mentioned previously, mental health stigma encompasses feelings, attitudes, and behaviors (often negative) about those with mental dysfunction (Overton & Medina, 2008). Mental health stigma can be further divided into social stigma, also known as public stigma, which exists at the group level and describes the concept of discriminating against an entire group for its members' perceived status or identity. In contrast, self-stigma (or internalized stigma) exists at the individual level and is a judgment made about one's self where a person endorses stereotypes about their own mental illness and their abilities to effectively interact in the world around them. Self-stigma may result in maladaptive behavior, identity transformation, or the anticipation of negative social reactions related to one's mental illness (Livingston & Boyd, 2010). When an individual believes



the typical stereotypes about a mental illness, they begin to see themselves as a real-life example of these stereotypes (Corrigan & Rao, 2012). These effects of self-stigma can impact the individual and their ability to function in everyday life by reducing their self esteem and self-efficacy, and instilling a sense of hopelessness. In addition, their self-care and overall health may be jeopardized due to a general dissatisfaction and disregard for oneself (Corrigan & Rao, 2012). As such, it is important to understand how mental health related self-stigma manifests and how it can be combated.

### **Self-Stigma Development**

There are two major models describing the development of self-stigma. The first is Chan and Mak's (2015) theory of self-stigma. This theory looks at the content and process of self-stigma as two separate mechanisms that work conjointly. A mental habit research paradigm has been used to examine distinctions between content and processes in negative self-thinking, negative body perception, worrying, and narcissism. In relation to self-stigma, content would refer to stereotype self-concurrence, or the extent to which the individual agrees with the stereotypes about themselves based on their mental illness. The process of self-stigma refers to habitual self-stigma, or the extent to which these thoughts occur automatically. Once self-stigmatizing thoughts have become habitual, they are more likely to be repetitive and stable, and in turn, harmful. In all, the process of self-stigma is more detrimental to the individual than the content itself.

The second model by Corrigan and Rao (2012) suggests a stage model approach. This approach is intended to explain how self-stigma develops. The first step, known as the awareness stage, is becoming aware that one's "undesired condition" (mental illness) is publicly stigmatized against. If a person comes to accept the public's beliefs about said mental illness,



they enter the Agreement stage. After agreeing, the person may apply these societally-held stereotypes to themselves. This process may lead to a decrease in self-esteem and self-efficacy (Corrigan & Rao, 2012).

### **Predictors of Self-Stigmatizing Behavior**

Self-stigma is not present in every individual with a mental illness. Therefore, examining predictors of self-stigma may help identify individuals prone to developing self-stigmatizing attitudes and beliefs. Livingston and Boyd's (2010) meta-analytic results indicated there were no statistically significant relationships between sociodemographic variables (i.e. gender, age, education, employment, marital status, income, and ethnicity) and self-stigma. However, these results indicated that psychosocial variables (i.e. hope, self-esteem, empowerment/mastery, self-efficacy, quality of life, and social support/integration) had moderate to large negative associations with self-stigma across the examined studies. Based on these findings, one could hypothesize self-stigmatizing attitudes are more likely to develop in individuals who are lacking factors supporting emotional and social resiliency. For these individuals, the onset of a mental illness and subsequent development of self-stigmatizing attitudes exacerbate resiliency deficits (Livingston & Boyd, 2010).

In order to cope with the potential of these negative stereotypes related to mental illness, Corrigan (2004) found that engagement in maladaptive coping strategies is also associated with self-stigmatizing beliefs. Concealment and withdrawal specifically are common strategies individuals engage in to cope with self-stigma. Because of the possibility of being labeled or thought less than acceptable, individuals with mental illness often conceal (hide) their mental illness. If their mental illness is evident to others, the individual may also withdraw from social situations in order to actively avoid being labeled as mentally ill. Through this maladaptive

active avoidance, the individual is able to control the outward stigmas of those around them (Corrigan, 2004).

Similarly, individuals with mental health-related self stigma may also engage in less active attempts at coping, such as experiential avoidance. Experiential avoidance of self-stigma is defined as an excessive negative evaluation of self-stigmatizing thoughts, as well as an unwillingness to experience these thoughts (Corrigan, 2004). This creates a cycle of negative thoughts combined with repression of these thoughts. Research on these coping strategies suggests that this approach to negative thoughts can actually increase their frequency (Corrigan, 2004). Therefore, poor attempts at coping with self-stigmatizing beliefs could actually exacerbate negative thoughts and associated outcomes (Chan & Mak 2015).

### **Distress Intolerance and Self-Stigma**

Another way we can increase our understanding of self-stigma is by examining which personality characteristics are related to its development. One specific personality factor that may play a role is distress intolerance (DI).<sup>1</sup> Although previous authors have proposed different definitions of DI, Simon and Gaher (2005) defined the construct as the capacity (or inability) to experience and withstand negative psychological states. These “experiential states” consist of aversive physical sensations, harmful emotional states, or the possibility of personal threat as a result of uncertain and ambiguous life circumstances, which therefore encompass cognitive, affective, and behavioral features (Zvolensky, Leyro, Bernstein, & Vujanovic, 2011). Because DI encompasses intolerance of negative emotions that can characterize self-stigmatizing beliefs, this definition will be used in the current study. Simons and Gaher (2005) also suggest that DI is multidimensional in nature, and includes an individual’s inability to tolerate distress, assessment



of feelings of distressful emotional situations as unacceptable, and extent to which one's attention is absorbed by negative emotion.

In a review of empirical literature conducted using adult samples, Leyro, Zvolensky, and Bernstein (2010) found that individuals with elevated DI may be prone to respond maladaptively to negative emotions, resulting in the avoidance of negative emotions and aversive states. Conversely, individuals with low levels of DI may be more able to approach negative emotions and aversive states (Leyro et al., 2010). Because of these behavioral implications, the construct of DI has been hypothesized to contribute to the development and maintenance of both internalizing and externalizing disorders (Leyro et al., 2010). For example, DI can act as an "amplifier" for these negative emotional experiences, therefore contributing to the development and maintenance of internalizing disorders. Similarly, a person's inability to cope with negative emotions may lead to the maladaptive use of alcohol or drugs to numb these emotional reactions. (Zvolensky et al., 2011).

The perception of distress as unacceptable, as described by DI, may lead the individual to view themselves and their mental illness in a negative manner as well, contributing to self-stigmatizing beliefs. Thus, it is plausible that a correlation between the two constructs exists. Self-stigma refers to the lack of acceptance of one's mental illness and the reinforcement of societally held stereotypes, whereas DI refers to the inability to withstand negative emotional experiences. As such, one would expect those who view their mental illness negatively (i.e., as unacceptable) to be more intolerant of distressing situations as a whole. This creates a cycle of unacceptance and inability to handle negative emotional states related to one's own mental illness. However, no previous study has examined if this hypothesized association between DI and self-stigma exists.

### Current Study

Given this gap in the literature regarding these two constructs, the goal of the current study was to examine the association between DI and self-stigma in individuals with mental illness. Based on previously mentioned research, I hypothesized that there would be a strong, positive correlation between DI and the endorsement of self-stigmatizing attitudes about one's mental illness. To examine this hypothesis, I administered self-report measures of both DI and self-stigmatizing attitudes to college students who reported having been diagnosed with a mental illness. If supported, this hypothesis suggests that there would be a relationship between DI and self-stigma, such that as DI increases, self-stigma increases.

### Method

#### Participants

Participants in the current study included 54 undergraduate students from Ball State University who were recruited as part of a larger study on distress intolerance and related constructs (see procedures). Participants for the larger study were recruited from the Introductory Psychology and Marketing student pool. All participants in the current study reported having been previously diagnosed with a mental illness (see procedures). All participants were between the ages of 18 and 22 ( $M = 19.13$ ,  $SD = 1.17$ ). The sample included 13% ( $n = 7$ ) men and 87% ( $n = 47$ ) women, and 85.2% ( $n = 46$ ) identified as White, 7.4% ( $n = 4$ ) as Black, and 7.4% as ( $n = 4$ ) another or unidentified racial/ethnic group.

#### Measures

*Self-Stigma of Mental Illness Scale-Short Form (SSMIS-SF).* The SSMIS-SF (Corrigan, et al., 2011) is a shortened, 20-item version of the 40-item Self-Stigma of Mental Illness Scale (SSMIS; Corrigan, Watson, & Barr, 2006). Subscales on the SSMIS-SF consist of stereotype



awareness, agreement, self-concurrence, and self-esteem decrement, each of which are proposed to assess a phase of the stage model approach to self-stigma development (Livingston and Boyd, 2010). Example items from the SSMIS-SF include “Because I have a mental illness, I am unpredictable” and “I think most persons with mental illness are to blame for their problems” (See Appendix B for full measure; Corrigan et al., 2011). In the current study, internal consistency indicators for subscale scores of the SSMIS-SF fell within an acceptable range among a college student sample ( $\alpha = 0.85-.94$ ; see Table 1). Scores on the SSMIS-SF have been previously associated with measures of hopelessness, low self-esteem, low empowerment/mastery, reduced self-efficacy, and decreased quality of life, supporting the convergent validity of scores on the measure (Livingston & Boyd, 2010).

**Distress Tolerance Scale (DTS).** The DTS (Simon & Gaher, 2005) is a 15-item measure evaluating one’s capacity to experience and withstand negative psychological states. The global score on the DTS assesses dimensions of DI including tolerance (e.g. “I can’t handle feeling distressed or upset”), appraisal (e.g. “My feelings of distress or being upset are not acceptable”), regulation (e.g. “When I feel distressed or upset I must do something about it immediately”), and absorption (e.g. “When I feel distressed or upset, I cannot help but concentrate on how bad the distress actually feels) (Simons & Gaher, 2005). In the current study, internal consistency indicators for global and subscale DTS scores fell within an acceptable range ( $\alpha = 0.67-0.92$ ; see Table 1). Scores on the DTS have demonstrated moderate negative associations with mood dysregulation and lability, supporting the convergent validity of scores on this measure (Simons & Gaher, 2005). For the purposes of this study, scores on all subscales of the DTS were reverse coded, such that higher scores reflected an intolerance of distress (rather than adaption to distress).

**Procedure**

Informed consent was addressed as part of the larger study. Participants received course credit for their compensation. Participants completed computerized administrations of SSMIS-SF and DTS measures in a research lab supervised by graduate and undergraduate research assistants. These measures were administered as part of a larger study examining the validity of DI and related affective constructs. Measures for this study and the larger study were administered through the online survey software Qualtrics (Qualtrics Labs, Inc., 2005) in a random order (See Appendix A for a list of all measures administered in the larger study). Other measures in the study were not expected to influence responses to the SSMIS-SF or DTS. However, because the specific subscales for the SSMIS-SF are designed to be answered by individuals experiencing a mental illness, only those who indicated they had been previously diagnosed with a mental illness were administered the SSMIS-SF. All other measures described as part of this and the larger study were administered to all participants, regardless of mental health status. The procedures for the larger study were approved by Ball State University's Institutional Review Board.

**Data Analyses**

To determine whether there was a relationship between scores on the SSMIS-SF and DTS scales, a series of Pearson's Product-Moment Correlations were calculated. In interpretation, I considered both statistical significance ( $p \leq .05$ ), as well as Cohen's (1988) guidelines for effect size. Specifically, correlations achieving moderate effect sizes ( $r \geq .30$ ) were considered clinically meaningful.



### Results

Results are presented in Table 1. DTS total scores demonstrated significant positive associations of a moderate effect size with the scores from Apply and Hurts subscales of the SSMIS-SF ( $r = .31$  and  $.39$  respectively). Additionally, scores on the DTS Tolerance and Absorption subscales were all associated with scores on the SSMIS-SF Apply and Hurt subscales ( $r$ 's ranging from  $.28$  to  $.35$ , all  $p$ 's  $< .05$ ). The Tolerance, Absorption, and Appraisal subscale scores were each associated with Hurts Self subscale scores ( $r$ 's ranging from  $.34$  to  $.42$ ,  $p$ 's  $< .05$ ). There was no significant association between the DTS Appraisal and SSMIS-SF Apply subscales. Scores on the DTS Regulation subscale were not associated with scores on any subscales of the SSMIS-SF. Finally, there were no significant associations between the DTS Total or subscale scores and scores on the Aware and Agree subscales of the SSMIS-SF.

### Discussion

The purpose of the current study was to examine the relationship between mental health self-stigma and DI. Supporting my hypothesis, results demonstrate that for individuals indicating they had been diagnosed with a mental illness, there was a moderate positive association between self-stigma and DI. This suggests, as people are more intolerant of distress, they may also be more likely to be self-stigmatizing. However, DI was not significantly associated with being aware of or agreeing with mental illness related stereotypes. Therefore, being more intolerant of distress does not necessarily impact whether or not a person is aware of, or agrees with, these societally held stereotypes regarding mental illness.

In this study DTS subscales were significantly associated with the Apply and Hurts subscales, indicating there is a possible connection between a person's distress intolerance, their application of mental health-related stereotypes toward themselves, and the negative outcomes

that are associated with mental illness self-stigma. As hypothesized, these associations suggest that self-stigma (specifically application and self-decrement) and distress intolerance may exacerbate one another. The negative outcomes of self-stigma (i.e., low self-esteem or poor self-efficacy) may, in turn, make a person less able to cope with distress. Alternatively, previous research would suggest that being highly distress intolerant predisposes an individual to develop mental health self-stigma due to an inability to cope and an exacerbation of negative emotions (Leyro et al., 2010). Further research should explore this hypothesis.

Possible theoretical explanations for the lack of association between self-stigma with the emotion regulation component of DI could be that this association would be dependent on an individual's level of hopelessness. Specifically, at low levels of hopelessness, the individual who experiences mental health problems may not experience self-stigma that would motivate emotional regulation. However, consistent with the Learned Helplessness/Hopelessness Theory (Seligman, 2007), at high levels of hopelessness, individuals with a mental illness may have no motivation to cope and, therefore, do not see any reason to try to regulate their negative emotions. This experience of hopelessness, in turn, could lead to an eventual acceptance of distress as being present, making the person less likely to cope because they may feel helpless against their mental illness and distress. Future research is needed to explore this hypothesis.

This study had several limitations. First, because participants were administered measures once, scores only reflect their level of DI and self-stigma at one point in time. A longitudinal design would provide a more accurate representation of a person's beliefs and traits across time. Also, the sample was disproportionately white women of college age, hindering the generalization of these results. Finally, the screening process assessing a mental illness diagnosis



was only one question that did not include an assessment of the severity or time restraints of mental illness.

Given these limitations, future studies should reexamine the association between DI and self-stigma in a more diverse sample whose experiences of mental illness are assessed more thoroughly. Future studies should also examine the potential sequence/development of self-stigma and distress intolerance. Through an evaluation of the sequence, we can begin to understand if mental illness self-stigma causes a person to become more intolerant of distress, or if distress intolerance predisposes a person to experiences of mental illness self-stigma. By figuring out the order of these two events, future research could possibly target one area to reduce the other. The negative outcomes of self-stigma (e.g., low self-esteem or hopelessness) and DI (i.e., inability to cope) could be reduced by targeting these two constructs simultaneously.

In summary, results of this study indicate distress tolerance and self-stigma are associated and may influence one another. This was the first study to examine the association between these two constructs and provide preliminary evidence to suggest personality predictors, such as DI, may influence the development of mental health related self-stigma. This is important because by understanding the relationship between these two constructs, we are better able to predict mental illness self-stigma and work to prevent it.

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Table 1. Descriptive Statistics and Associations Between Self-Stigma and Distress Intolerance

				SSMIS-SF Subscales			
				Aware	Agree	Apply	Hurts
<i>M</i>				23.31	13.26	8.35	8.87
<i>SD</i>				12.32	6.84	5.89	7.41
<i><math>\alpha</math></i>				.94	.86	.85	.88
DTS Subscale	<i>M</i>	<i>SD</i>	<i><math>\alpha</math></i>	<i>r</i>	<i>r</i>	<i>r</i>	<i>r</i>
DTS Total	2.80	.75	.92	.05	.12	<b>.31*</b>	<b>.39*</b>
DTS Tolerance	2.89	.92	.67	.07	.19	.28*	<b>.34*</b>
DTS Absorption	2.67	.92	.73	.15	.13	<b>.35*</b>	<b>.42**</b>
DTS Appraisal	3.15	.85	.83	.06	.11	.26	<b>.39**</b>
DTS Regulation	2.50	.85	.73	-.11	-.02	.15	.19

Note.  $n=54$ . = Self-Stigma of Mental Illness Scale (Short-form); DTS = Reverse Scored Distress

Tolerance Scale.  $\alpha$  = Cronbach's internal consistency reliability estimate. \*  $p < .05$ ; \*\*  $p < .01$ . Moderate effect sizes were considered clinically meaningful. **Bold text** indicates moderate effect size correlation ( $r \geq .30$ ) (Cohen, 1988). Italic text indicates correlation approaching moderate effect size.

## Appendix A

- Anxiety Sensitivity Index-3 (ASI-3; Taylor et al., 2007)
- Distress Tolerance Scale (DTS); Simons & Gaher, 2005)
- Alcohol Use Disorders Identification Test (AUDIT; Saunders, et al., 1993)
- Cannabis Use Disorders Identification Test (CUDIT; Adamson & Sellman, 2003)
- Drug Use Disorders Identification Test (DUDIT; Berman, et al., 2003)
- Drinking Motivations Questionnaire-Revised (DMQ-R; Cooper, 1994)
- Catastrophic Cognitions Questionnaire (CCQ-M; Khawaja, Oei, & Baglioni, 1994)
- Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004)
- Brief Approach/Avoidance Coping Questionnaire (BACQ; Finset, et al., 2002)
- Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF; Ben-Porath & Tellegen, 2008/2011)
- Agoraphobic Cognitions Questionnaire (ACQ; Chambless, et al., 1984)
- Body Sensations Questionnaire (BSQ; Chambless et al., 1984)
- Fear Questionnaire (FQ; Marks & Matthews, 1979)
- Social Interaction Anxiety Scale (SIAS; Mattick & Clarke, 1998)
- Frustration-Discomfort Scale (FDS; Harrington, 2005)
- General Distress Scale of ADDI-27; Osman et al., 2011)
- Ruminative Responses Scale (RRS; Treynor, Gonzalez, & Nolen-Hoeksema, 2003)
- Penn State Worry Questionnaire (PSWQ; Meyer, Miller, Metzger, & Borkovec, 1990)



## Appendix B

## SSMIS-SF

The public has believed many different things about persons with serious mental illnesses over the years, including some things that could be considered offensive. We would like to know what you think most of the public as a whole, or most people in general, believe about persons with serious mental illnesses at the present time. Please answer the following items using the 9-point scale below.

I strongly disagree			I neither agree nor disagree			I strongly agree		
1	2	3	4	5	6	7	8	9

## Section 1:

I think the public believes...

1. \_\_\_\_\_ most persons with mental illness are to blame for their problems.
2. \_\_\_\_\_ most persons with mental illness are unpredictable.
3. \_\_\_\_\_ most persons with mental illness will not recover or get better.
4. \_\_\_\_\_ most persons with mental illness are dangerous.
5. \_\_\_\_\_ most persons with mental illness are unable to take care of themselves.

## Section 2

I think...

1. \_\_\_\_\_ most persons with mental illness are to blame for their problems.
2. \_\_\_\_\_ most persons with mental illness are unpredictable.
3. \_\_\_\_\_ most persons with mental illness will not recover or get better.
4. \_\_\_\_\_ most persons with mental illness are dangerous.
5. \_\_\_\_\_ most persons with mental illness are unable to take care of themselves.

## Section 3

Because I have a mental illness...

1. \_\_\_\_\_ I am unable to take care of myself.
2. \_\_\_\_\_ I will not recover or get better.
3. \_\_\_\_\_ I am to blame for my problems.
4. \_\_\_\_\_ I am unpredictable.
5. \_\_\_\_\_ I am dangerous.

## Section 4

I currently respect myself less...

1. \_\_\_\_\_ because I am unable to take care of myself.
2. \_\_\_\_\_ because I am dangerous.”
3. \_\_\_\_\_ because I am to blame for my problems.
4. \_\_\_\_\_ because I will not recover or get better.
5. \_\_\_\_\_ because I am unpredictable.

## The SSMIS-SF Score Sheet

Summing items from each section represents the 3 A's plus 1.

\_\_\_\_\_ Aware: (Sum all items from Section 1).

\_\_\_\_\_ Agree: (Sum all items from Section 2).

\_\_\_\_\_ Apply: (Sum all items from Section 3).

\_\_\_\_\_ Hurts self: (Sum all items from Section 4).





Office of Research Integrity  
Institutional Review Board (IRB)  
2000 University Avenue  
Muncie, IN 47306-0155  
Phone: 765-285-5070

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DATE: February 9, 2018

TO: Megan Cater

FROM: Ball State University IRB

RE: IRB protocol # 1194533-1

TITLE: An Examination of Self-Stigma and Distress Intolerance in College Students  
Diagnosed with a Mental Illness

SUBMISSION TYPE: New Project

ACTION: APPROVED

DECISION DATE: February 9, 2018

REVIEW TYPE: **EXEMPT**

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The Institutional Review Board reviewed your protocol on February 9, 2018 and has determined the procedures you have proposed are appropriate for exemption under the federal regulations. As such, there will be no further review of your protocol, and you are cleared to proceed with the procedures outlined in your protocol. As an exempt study, there is no requirement for continuing review. Your protocol will remain on file with the IRB as a matter of record.

**Exempt Categories:**

	<b>Category 1:</b> Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.
	<b>Category 2:</b> Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior
	<b>Category 3:</b> Research involving the use of educational test (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior that is not exempt under category 2, if: (i) the human subjects are elected or appointed officials or candidates for public office; or (ii) Federal statute(s) require(s) without exception that the confidentiality of the personally identifiable information will be maintained throughout the research and thereafter.
XXXXX	<b>Category 4:</b> Research involving the collection of study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or

	if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.
	<b>Category 5:</b> Research and demonstration projects which are conducted by or subject to the approval of Department or agency heads, and which are designed to study, evaluate or otherwise examine: (i) public benefit or service programs; (ii) procedures for obtaining benefits or services under those programs; (iii) possible changes in methods or levels of payment for benefits or services under these programs.
	<b>Category 6:</b> Taste and food quality evaluation and consumer acceptance studies, (i) if wholesome foods without additives are consumed or (ii) if a food is consumed which contains a food ingredient at or below the level and for a use found to be safe, by the Food and Drug Administration or approved by the Environmental Protection Agency or the Food Safety and Inspection Service of the U.S. Department of Agriculture.

#### Editorial Notes:

1. Secondary data analysis of de-identified data from a previously approved study.

While your project does not require continuing review, it is the responsibility of the P.I. (and, if applicable, faculty supervisor) to inform the IRB if the procedures presented in this protocol are to be modified or if problems related to human research participants arise in connection with this project. **Any procedural modifications must be evaluated by the IRB before being implemented, as some modifications may change the review status of this project.** Please contact (ORI Staff) if you are unsure whether your proposed modification requires review or have any questions. Proposed modifications should be addressed in writing and submitted electronically to the IRB (<http://www.bsu.edu/irb>) for review. Please reference the above IRB protocol number in any communication to the IRB regarding this project.

**Reminder:** Even though your study is exempt from the relevant federal regulations of the Common Rule (45 CFR 46, subpart A), you and your research team are not exempt from ethical research practices and should therefore employ all protections for your participants and their data which are appropriate to your project.

D. Clark Dickin, PhD/Chair  
Institutional Review Board

Christopher Mangelli, JD, MS, MEd, CIP/  
Director  
Office of Research Integrity